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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/759,548	01/16/2004	Peter Rogowsky	A36125PCT USA-A	8731

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EXAMINER	
WORLEY, CATHY KINGDON	
ART UNIT	**PAPER NUMBER**
1638	

DATE MAILED: 01/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/759,548	ROGOWSKY ET AL.	
	Examiner	Art Unit	
	Cathy K. Worley	1638	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 January 2004*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-41* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) _____ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☒ Claim(s) *1-41* are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

I. Claims 1-11, 15-34, drawn to a nucleic acid encoding an ISUM2A polypeptide, a vector, host cell, plant, and seed comprising said nucleic acid, and a method of making a transformed plant comprising said nucleic acid, classified in class 800, subclass 290, for example.

II. Claims 12-14, drawn to primers and a method using the primers to detect the presence of an ISUM2A polypeptide in a sample, classified in class 536, subclass 24.33, for example.

III. Claims 35-36, drawn to an ISUM2A polypeptide, classified in class 530, subclass 350, for example.

IV. Claims 37-39, drawn to an antibody directed against an ISUM2A polypeptide and a method and kit for detecting said polypeptide, classified in class 530, subclass 387.1, for example.

V. Claims 40-41, drawn to the use of a nucleic acid in selection programs and a method for selecting plants with modified embryo size, classified in class 435, subclass 6, for example.

The inventions are distinct, each from the other because of the following reasons:

The methods of groups I, II, and V are patentably distinct from the products of groups III and IV. The methods of groups I, II, and V do not utilize the products of groups III and IV as starting materials, nor do they produce the products of groups III and IV.

A search for the method of group I will require a sequence search for nucleic acids encoding ISUM2A and a search of methods for plant transformation and heterologous expression of proteins in plants. A search for the methods of group II will require searching for methods of detecting proteins using primers. A search for the methods of group V will require search for methods of marker-based breeding. A search for the protein of group III will require a sequence search for proteins with a particular amino acid sequence and for methods of isolating and purifying proteins. A search for the antibody of group IV will require a search in the literature for antibodies against ISUM2A or related proteins. These searches are not coextensive, and therefore it would constitute an undue burden to examine more than one invention.

The method of group I is patentably distinct from the methods of groups II and V because it requires different starting materials and involves different methods steps. The methods of groups II and V require primers rather than a polynucleotide encoding a full-length protein. The method of group I involves method steps for generating a transgenic plant, whereas the methods of groups II and V involve methods for detection.

A search for the method of group I will require a sequence search for nucleic acids encoding ISUM2A and a search of methods for plant transformation and heterologous expression of proteins in plants. A search for the method of groups II will require a sequence search of the nucleic acid databases specifically for primers which will involve a score over length analysis. A search for the methods of group II will require searching for methods of detecting proteins using primers. A search for the methods of group V will require search for methods of marker-based breeding. These searches are not coextensive, and therefore it would constitute an undue burden to examine more than one invention.

The method of group II is patentably distinct from the method of group V because it requires different starting materials and involves different method steps. The method of group V utilizes a nucleic acid encoding an ISUM2A polypeptide and plants with modified embryo size and/or development influencing the content of start and/or of oil. The method of group II utilizes a primer and a sample prospectively comprising a nucleic acid encoding an ISUM2A polypeptide. These are different starting materials. The method of group V is a breeding program, whereas the method of group II is a detection method.

A search for the method of group II will require a sequence search of the nucleic acid databases specifically for primers which will involve a score over length analysis. A search for the methods of group II will require searching for methods of detecting proteins using primers. A search for the methods of group V will require

search for methods of marker-based breeding. These searches are not coextensive, and therefore it would constitute an undue burden to examine more than one invention.

The polypeptide of group III is patentably distinct from the antibody of group IV. The polypeptide of group III is a molecule with a unique amino acid sequence and structure that is different from the antibody molecule of group IV. Each of these molecules can be made without using the other, for instance, the antibody of group IV can be made using synthetic peptides as an immunogen. The polypeptide of group III can be made by purifying it from an extract using standard chromatography techniques, for example.

A search for the protein of group III will require a sequence search for proteins with a particular amino acid sequence and for methods of isolating and purifying proteins. A search for the antibody of group IV will require a search in the literature for antibodies against ISUM2A or related proteins. These searches are not coextensive, and therefore it would constitute an undue burden to examine more than one invention.

The examiner has required restriction between product (group II) and process (group V) claims. Where applicant elects claims directed to the product, and a product claim is subsequently found allowable, withdrawn process claims that depend from or otherwise include all the limitations of the allowable product claim

will be rejoined in accordance with the provisions of MPEP § 821.04. Process claims that depend from or otherwise include all the limitations of the patentable product will be entered as a matter of right if the amendment is presented prior to final rejection or allowance, whichever is earlier. Amendments submitted after final rejection are governed by 37 CFR 1.116; amendments submitted after allowance are governed by 37 CFR 1.312.

In the event of rejoinder, the requirement for restriction between the product claims and the rejoined process claims will be withdrawn, and the rejoined process claims will be fully examined for patentability in accordance with 37 CFR 1.104. Thus, to be allowable, the rejoined claims must meet all criteria for patentability including the requirements of 35 U.S.C. 101, 102, 103, and 112. Until an elected product claim is found allowable, an otherwise proper restriction requirement between product claims and process claims may be maintained. Withdrawn process claims that are not commensurate in scope with an allowed product claim will not be rejoined. See "Guidance on Treatment of Product and Process Claims in light of In re Ochiai, In re Brouwer and 35 U.S.C. § 103(b)," 1184 O.G. 86 (March 26, 1996). Additionally, in order to retain the right to rejoinder in accordance with the above policy, Applicant is advised that the process claims should be amended during prosecution either to maintain dependency on the product claims or to otherwise include the limitations of the product claims. Failure to do so may result in a loss of the right to rejoinder. Further, note that the prohibition against double patenting

rejections of 35 U.S.C. 121 does not apply where the restriction requirement is withdrawn by the examiner before the patent issues. See MPEP § 804.01.

This application contains claims directed to multiple polynucleotide molecules. Each of these are patentably distinct from each other because the polynucleotides are each unique molecules with different chemical and structural features. Applicants are reminded that nucleic acid sequences encoding different proteins, and the amino acid sequences they encode, are structurally distinct chemical compounds and are unrelated to one another. These sequences are thus deemed to normally constitute independent and distinct inventions within the meaning of 35 U.S.C. 121. Absent evidence to the contrary, each such nucleic acid and amino acid sequence is presumed to represent an independent and distinct invention, subject to a restriction requirement pursuant to 35 U.S.C. 121 and 37 CFR 1.141 et seq.

Applicant is required to select one group of nucleic acid and amino acid sequences from the following:

A) SEQ ID NOs: 1, 3, and 5

B) SEQ ID NOs: 2, 4, and 6.

Claims that do not read on the elected sequence will be considered withdrawn. Applicant is advised that a reply to this requirement must include an identification of the sequence that is selected. An election that does not identify the

sequence selected will be considered nonresponsive. This requirement is not to be construed as an election of species since each nucleotide sequence is not a member of a single genus of invention but constitutes independent and patentably distinct inventions.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143).

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cathy K. Worley whose telephone number is (571) 272-8784. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anne Marie Grunberg can be reached on (571) 272-0975. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CKW
1/10/06

ANNE KUBELIK, PH.D.
PRIMARY EXAMINER